

## **DISCLAIMER**

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## **APPLICATION OF**

**BUCHANAN GENERATION, LLC**

**CASE NO. PUE-2001-00657**

**For permission to construct and operate  
an electrical generating facility**

## **REPORT OF DEBORAH V. ELLENBERG, CHIEF HEARING EXAMINER**

**June 11, 2002**

On November 13, 2001, Allegheny Energy Supply Company (“Allegheny Energy Supply”), a wholly owned subsidiary of Allegheny Energy, Inc., filed an application with the State Corporation Commission for a certificate of public convenience and necessity to construct, own and operate electric generation facilities with a capacity of up to 88 MW, an associated 138 kV transmission line, and other associated facilities at a site located in Buchanan County, Virginia. On December 13, 2001, Allegheny Energy Supply filed an amended application and the supplemental testimony of Thomas J. Irwin. The amended application seeks approval to construct, own and operate an electric transmission line necessary to interconnect at the generation facilities to the AEP Grassy Creek Substation. Mr. Irwin's supplemental testimony and exhibits provide information necessary to comply with the Commission's minimum requirements for transmission line applications filed under Virginia Code § 56-265.2.

By letter and additional testimony filed February 4, 2002, Allegheny Energy Supply advised the Commission that together with CONSOL Energy, Inc. (“CONSOL”), it had concluded the formation of the special purpose entity known as Buchanan Generation, LLC (“Buchanan Generation” or the “Applicant”), and that Buchanan Generation should henceforth be considered the Applicant.

Buchanan Generation proposes to construct, own and operate an 88 MW simple cycle gas-fired generation facility. The project will consist of two General Electric aeroderivative combustion turbines and associated auxiliary equipment. It will be fueled by coal bed methane gas collected by Pocahontas Gathering Company, a wholly owned subsidiary of CONSOL, and sold to Buchanan Generation by Buchanan Production Company, a Virginia general partnership. The project will also include a water treatment facility, a water line to interconnect the water treatment facility with the generation facilities, and a 138 kV transmission line that will be approximately 2.7 miles long.

On February 13, 2002, the Commission issued an Order for Notice and Hearing. In that order, the Commission docketed the case, appointed a hearing examiner, directed the Applicant to provide notice of its application, and provided that any person desiring to comment or request a hearing on the application should file such comments or requests on or before March 20, 2002. The Commission also directed Staff to analyze the application and file a report detailing its findings and recommendations in this matter.

No comments opposing the project and/or requests for hearing were received, and on March 28, 2002, Staff filed a report in which it addressed the proposed project, the criteria that the Commission must consider in evaluating the project, and its recommendation that the project be approved.

Although no requests for hearing were received and Staff supports the project, the Commission had remanded several similar cases to receive additional information on the cumulative impact of all proposed generating plants on existing air quality.<sup>1</sup> Like the pending case, three of those projects faced no opposition, but the Commission found that it was required to consider the environmental impact of those projects both individually and when combined with all other proposed projects. Specifically, the records in those cases did not address the cumulative impacts on existing air quality for criteria pollutants. After review of the record filed to support this project, it was determined that this record also required supplemental information on the impact of this project and the cumulative impact of all proposed projects on the existing air quality in Buchanan County and the surrounding area. Therefore, on May 2, 2002, a Hearing Examiner's Ruling was issued directing the Applicant to file supplemental information to support its application. On May 17, 2002, the Applicant filed the supplemental information as directed.

The Virginia Department of Environmental Quality ("DEQ") also filed a letter on May 20, 2002, advising the Commission it had reviewed the cumulative impact analysis submitted by the Applicant, and that the analysis adequately addressed the predicted impact of the Buchanan Generation facilities and 22 other proposed facilities on the air quality in Buchanan County and the surrounding area. The DEQ also submitted a summary of the predicted impact on ozone formation from the proposed project and fifteen other projects existing or proposed in Virginia.

## **SUMMARY OF THE RECORD**

The Applicant prefiled the direct testimony and exhibits of Thomas J. Irwin, an engineer in project development with Allegheny Energy Supply; George McComb, with Enviromet, an air quality consultant for the project; and Gerald J. Joseph, with URS Corporation, an environmental consultant for the project, in support of its application. The Applicant also filed the supplemental testimony of Mr. Irwin and Robert E. Douglas, coordinator - power projects for CONSOL. In his direct testimony Mr. Irwin described Buchanan Generation and provided an overview of the project, including background on the development of the project at the site, a description of the site, proposed generation technology, fuel supply arrangements, the impact of the project on regulated public utilities in Virginia, and the public interest. Mr. McComb focused on the impact of the project on air quality, discussed plans for mitigating those impacts, and described the process for obtaining the required federal and state permits. Mr. Joseph's testimony discussed the predicted impacts of the project on cultural resources, endangered species, and wetlands, and plans to minimize those impacts.

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<sup>1</sup>*Application of Tenaska Virginia Partners, L.P. for approval of a certificate of public convenience and necessity pursuant to Virginia Code § 56-265.2, an exemption from Chapter 10 of Title 56, and interim approval to make financial commitments and undertake preliminary construction work*, Case No. PUE010039, Order (January 16, 2002) ("Tenaska Remand Order"); *Application of Mirant*, Case No. PUE-2001-00430, Remand Order (April 29, 2002); *Application of CINCAP*, Case No. PUE-2001-00169, Remand Order (April 29, 2002); *Application of Kinder Morgan Virginia*, Case No. PUE-2001-00423, Remand Order (April 29, 2002).

Mr. Irwin's supplemental testimony provided required information on the proposed 138 kV transmission line associated with the project. Mr. Douglas's testimony advised that Buchanan Generation, LLC, had been formed as a Virginia limited liability company owned equally by CONSOL and Allegheny Energy Supply. Additionally, the testimony provided additional details concerning the gas supply line that will be built as part of the project.

The Applicant is a single purpose entity created to construct, own and operate the project. It is equally owned by Allegheny Energy Supply and CONSOL. Allegheny Energy Supply is a wholly owned subsidiary of Allegheny Energy, Inc., that provides energy and telecommunications services. It has extensive experience in operations, gas and electric marketing and delivery, asset management, fuel management, and energy product development. Allegheny Energy Supply currently has several electric power activities in Virginia. It owns an 840 MW interest in the Bath County pump storage project at Mountain Grove, Virginia. It owns and operates "a 1.6 MW hydro station in Luray, Virginia, a 1.4 MW hydro station in Newport, Virginia and a 0.9 MW hydro station in Shenandoah, Virginia."<sup>2</sup> The Potomac Edison Company, d/b/a Allegheny Power, another wholly owned subsidiary of Allegheny Energy, Inc., provides electric service to 86,000 customers in Virginia.<sup>3</sup> CONSOL is the largest producer of high Btu bituminous coal in the United States and the largest exporter of U.S. coal. It is the second largest U.S. producer of coal bed methane gas and has a net production of 89 million cubic feet per day.<sup>4</sup>

The Applicant proposes to construct, own and operate an 88 MW generating project. The project site is four miles southeast of Oakwood in Buchanan County, Virginia, and is located on land owned by Consolidation Coal Company ("Consolidation Coal"), a subsidiary of CONSOL. The property is a brown field site with convenient access to water, fuel and electric transmission.<sup>5</sup> The site is the former location of a contour strip coal mining operation, and consists of six to ten acres. Approximately 2.5 acres of the property will be fenced and will contain equipment associated with generation. The project will also include 1.7 acres near a mining vent shaft owned by CONSOL for the water treatment facility and 3,700 feet of water pipeline right-of-way connecting the water treatment plant to the power plant. Buchanan County has no zoning ordinances, and present and past use of the site is consistent with the construction and operation of generation facilities.

Pocahontas Gathering Company, also a subsidiary of CONSOL, is engaged in the drilling and development of methane gas recovery wells from CONSOL coal seams underlying the site.<sup>6</sup> Buchanan Production Company will sell the gas to the generation facilities.<sup>7</sup>

The project will interconnect with the American Electric Power, Inc. ("AEP") 138 kV transmission system through a new 2.7 mile 138 kV transmission line from the generation facilities to a new switching station near the 138 kV Grassy Creek Substation that serves CONSOL. AEP conducted a power flow analysis for various generation phases up to 268 MWs. The results of the

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<sup>2</sup>Irwin direct testimony, November 13, 2001, at 3.

<sup>3</sup>Id.

<sup>4</sup>Id.

<sup>5</sup>McComb direct testimony, November 13, 2001, at 2.

<sup>6</sup>Irwin direct testimony, November 13, 2001, at 6.

<sup>7</sup>Douglas testimony, February 4, 2002, at 2.

study indicated that the initial generation project of 88 MW can be accommodated safely by the AEP transmission system through an interconnection at Grassy Creek Substation.<sup>8</sup>

CONSOL has already acquired the property and rights-of-way necessary for the plant, the transmission line, and the water treatment facility. Commercial operation of the generation facility is scheduled to begin in the summer of 2002. The Applicant states that the electricity will be sold on a merchant basis exclusively at wholesale, and will, therefore, be subject to regulation by the Federal Energy Regulatory Commission. The power from the project will be marketed by Allegheny Energy Global Markets, a subsidiary of Allegheny Energy Supply, into regional power markets under a variety of contract terms.<sup>9</sup>

Applicant avers that the project will be not be in the ratebase of any regulated utility in Virginia. Buchanan Generation states that the project thus will have no adverse effect upon the rates paid by customers of any regulated public utility in Virginia or upon the reliability of service provided by AEP.

Allegheny Energy Supply and CONSOL have met with representatives of the Buchanan County Economic Development and Building Inspection Departments, and the Buchanan County mapping office to identify permits required at the County level.<sup>10</sup>

The turbines will be fired exclusively with coal bed methane gas, which is similar to pipeline quality natural gas.<sup>11</sup> The Applicant identified air emissions from the simple cycle combustion turbine to include primarily nitrogen oxides (“NO<sub>x</sub>”), carbon monoxide (“CO”), and particulate matter (“PM<sub>10</sub>”). Small quantities of volatile organic compounds (“VOC”), other organic compounds, and sulfur dioxide (“SO<sub>2</sub>”) will also be emitted. The Best Available Control Technology (“BACT”) analysis presented to the DEQ concluded that control of air emissions through water injection, good combustion practices, and exclusive use of clean burning coal bed methane fuel was appropriate for this project.<sup>12</sup>

Mr. Joseph concluded that no historic National Register sites or other previously recorded historic structures are present in the area of potential effect for the project.<sup>13</sup> He also concluded that no archaeological sites have been recorded in the project area.<sup>14</sup> Moreover, he advised that the project area has been the subject of modern disturbances including strip mining and utility installation activities.<sup>15</sup> Finally, based on field work and his contact with state and federal agencies, Mr. Joseph also concluded that the project will not have an adverse impact on state or federally documented threatened or endangered species.<sup>16</sup>

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<sup>8</sup>Irwin direct testimony, November 13, 2001, at 7.

<sup>9</sup>Id. at 4.

<sup>10</sup>Id. at 6.

<sup>11</sup>Id.

<sup>12</sup>McComb direct testimony, November 13, 2001, at 3 and at Attachment 2.

<sup>13</sup>Joseph direct testimony, November 13, 2001, at 3-4.

<sup>14</sup>Id. at 5.

<sup>15</sup>Id. at 7.

<sup>16</sup>Id. at 13.

A 10-inch gas supply line will be constructed from a 16-inch pipeline owned by Cardinal States Gathering Company (“Cardinal States”) approximately 4700 feet to the proposed regulation station on the site of the generation project. The route of the gas pipeline will follow an existing strip mine bench at an approximate elevation of 2400 feet. The right-of-way for the route will be deeded to the Applicant by Consolidation Coal and will follow two existing pipelines owned by Pocahontas.<sup>17</sup>

Staff filed a report herein supporting the proposed project. Staff confirmed that the generation plant will be located on the site of a former strip mine on property owned by Consolidation Coal. All adjacent property is owned by CONSOL or its subsidiaries, and consists of abandoned strip mines, gas well development, and undeveloped second growth forest lands.<sup>18</sup> The transmission line will interconnect the generating plant to the new Keen Mountain switching station being constructed by AEP and located adjacent to the CONSOL Grassy Creek Substation.

The generation facilities will be fueled exclusively by coal bed methane gas. The project gas line will be just over 4700 feet in length and will deliver gas from Buchanan Production Company through a tie on the Cardinal States pipeline.<sup>19</sup> The line will be located entirely on property owned by Consolidation Coal.

Although the Cardinal States pipeline ties into the Columbia Gas Transmission Company pipeline, there are no plans for the project to receive gas through that facility.<sup>20</sup> The project will be fueled with coal bed methane gas purchased from Buchanan Production Company. Consequently, Staff concurred that the project should have no impact on gas rates or the reliability of any regulated gas utility in Virginia.

The project water line will be 4700 feet in length and connect the generating plant with the new water treatment facility. The project will be operated as a peaking unit and although the Company has not estimated the number of days per year that the plant is expected to operate, Staff opined that using an expected maximum of 16 operational hours per day for both units would result in water consumption of 86,400 gallons per day.<sup>21</sup> Water will be supplied by the Buchanan County Public Service Authority. The plant will be operated as a zero discharge facility. Waste water from the plant will be filtered and recycled.

The DEQ coordinated a review of the various state and local agencies responsible for permits associated with the project. A number of recommendations were included in that report. Staff reported that none of those recommendations should preclude the project from receiving a certificate.<sup>22</sup> Staff also reported that the Applicant, with Allegheny Energy Supply's support, is capable of developing the project.<sup>23</sup>

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<sup>17</sup>Douglas testimony, February 4, 2002, at 2.

<sup>18</sup>Staff Report, March 28, 2002, at 3.

<sup>19</sup>Id.

<sup>20</sup>Id. at 7.

<sup>21</sup>Id. at 8.

<sup>22</sup>Id. at 10.

<sup>23</sup>Id.

Staff reported that all required property and rights-of-way have been acquired. Specifically:

1. Power generation facility - transferred to Buchanan Generation with access to public roads;
2. Water treatment plant - to be leased to Buchanan Generation;
3. Gas line - easement granted to Buchanan Generation;
4. Transmission line - right-of-way granted to Buchanan Generation;
5. Water line - right-of-way granted to Buchanan Generation; and
6. Keen Mountain Station - easement granted to AEP.

The Division of Economics and Finance also reported that Allegheny Energy Supply and CONSOL, the partners in this venture, appear to have access to the capital necessary to build the project.

Staff concurred the project will provide an economic benefit to the community through tax revenues associated with the construction and generation of the project. Property tax revenues of \$4.4 million over the 20-year life of the project were projected based on the estimated addition to the tax base of Buchanan County; however, the revenues may be reduced to \$4.1 million if the County approves a request by Buchanan Generation for a 30% property tax abatement over a four year period beginning in 2003.<sup>24</sup> The local economy was also expected to reap benefits during construction. The operation and maintenance budget for the project totals \$645,000 a year. The Applicant estimates that \$286,000 of the budget will be spent in the local and regional economy on rents, materials, and contract work.<sup>25</sup> The budget also includes the cost of water service from the Buchanan County Public Service Authority, which is estimated to average \$71,000 a year.<sup>26</sup> Staff reported that the economic benefits will not be offset by any direct or indirect costs. The Buchanan County Industrial Development Authority advised Staff that the County does not anticipate making any infrastructure improvements to accommodate the project. Therefore, Staff concluded that the project proposed by Buchanan Generation will provide economic benefits to the County and surrounding region.

On January 15, 2002, the Board of Supervisors of Buchanan County passed a resolution supporting the development of the generating plant. That resolution is attached to the Staff's Report as Appendix D. The Buchanan County Board of Supervisors supports the project because the development will not adversely impact the quality of air or water in Buchanan County; the amount of noise created by the plant will be less than that created by an ordinary gas ventilation well; and the development of the plant will significantly increase the amount of property and other taxes which Buchanan County collects annually and thus will enhance the local economy.

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<sup>24</sup>Id. at 13.

<sup>25</sup>Id. at 14.

<sup>26</sup>Id.

By letter dated March 11, 2002, the Cumberland Plateau Planning District also supported and endorsed the project advising that the project would not have an adverse impact on the quality of air, water, or noise levels and would significantly increase the amount of property and other taxes that the County may collect annually.

By letter dated May 15, 2002, the Buchanan County Board of Supervisors filed a second letter in this docket in which it asked the Commission for swift approval of this beneficial asset to their community. The Board cites its immediate need for the economic benefits provided by the project because of recent severe flooding. The Board notes that the project is state of the art in terms of minimizing pollution emissions, and is being constructed on a brown field site formerly used for coal mining. The Board understands that the project will emit minimal air emissions due to its small size and the use of clean burning coal bed methane gas as a fuel source. Moreover, the number of hours per year that it will run and the use of modern pollution control equipment will further minimize emissions. The Board also applauds the project's use of cutting edge equipment for treatment and disposal of waste. The Board reported that the water pipeline that the Applicant is constructing to the site can also be used to provide public water to homes in the area.

On May 17, 2002, the Applicant, at the direction of the examiner, filed a cumulative impact analysis that compared existing air quality levels and the National Ambient Air Quality Standards ("NAAQS") to the predicted impacts of NO<sub>x</sub> and PM<sub>10</sub> emissions from the Buchanan project alone and the cumulative impact of 23 existing or proposed power projects.<sup>27</sup> That analysis was supported by the DEQ.

## **DISCUSSION**

### **Statutory Standard**

Although Applicant seeks approval under Virginia Code § 56-265.2, the Commission concluded that that Code section is no longer applicable to this application and has been supplanted by § 56-580 D of the Code.<sup>28</sup> In its Order for Notice and Hearing the Commission concluded that it would treat the pending application as if it were filed under that Code section.

Section 56-580 D requires only two of the three findings that had been required under Code § 56-265.2 B, eliminating the requirement that a proposed electric generating facility must have no material adverse effect upon the rates paid by customers or any regulated utility. The Commission must also consider the environmental impact of electric generation facilities and the transmission line pursuant to Virginia Code § 56-46.1, and the impact on competition and economic development under Code § 56-596 A.

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<sup>27</sup>Cumulative Impact Analysis filed May 17, 2002.

<sup>28</sup>*Application of Buchanan Generation*, Case No. PUE-2001-00657, Order for Notice and Hearing (February 13, 2002) citing *Commonwealth of Virginia, at the relation of the State Corporation Commission, Ex parte: In the matter of amending filing requirements for applications to construct and operate electrical generating facilities*, Case No. PUE-2001-00313, Document Control Center Number 010810174, slip op. (August 3, 2001).

The law establishing the criteria applicable to a decision in this case is thus found in several statutes and in recent Commission precedents.<sup>29</sup> Virginia Code § 56-580 D specifically provides that:

The Commission may permit the construction and operation of electrical generating facilities upon a finding that such generating facility and associated facilities including transmission lines and equipment (i) will have no material adverse effect upon reliability of electric service provided by any regulated public utility and (ii) are not otherwise contrary to the public interest. In review of its petition for a certificate to construct and operate a generating facility described in this subsection, the Commission shall give consideration to the effect of the facility and associated facilities, including transmission lines and equipment, on the environment and establish such conditions as may be desirable or necessary to minimize adverse environmental impact as provided in § 56-46.1.

Under § 56-46.1, the Commission must consider the impact of the facility on the environment, establish such conditions that may be desirable or necessary to minimize any adverse environmental impact, receive and give consideration to all reports that relate to the proposed facility by state agencies concerned with environmental protection, and if requested by any county or municipality in which the facility is proposed to be built, to local comprehensive plans that have been adopted, consider any improvements in service reliability that may result from the construction of the facility, and consider the effect of the proposed facility on economic development within the Commonwealth.

Virginia Code § 56-596 A also requires the Commission to consider “the goals of advancement of competition and economic development in the Commonwealth.”

## **Reliability**

The first criteria that must be considered is the effect of the proposed project on the reliability of electric service provided by any regulated electric public utility. The evidence is clear that this project will have no material adverse effect on the reliability of the AEP system to which it will interconnect.

AEP conducted three system impact studies, including a power flow analysis, a short circuit analysis, and stability analysis. All studies indicate that the AEP system can accommodate the interconnection of the plant with no needed system modifications beyond the addition of the interconnection facilities.<sup>30</sup> The best interconnection point was determined to be at Grassy Creek. The needed interconnection facilities include a new 138 kV switching station located at the Grassy

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<sup>29</sup>*Application of Tenaska Virginia Partners, L.P. for approval of a certificate of public convenience and necessity pursuant to Virginia Code § 56-265.2, an exemption from Chapter 10 of Title 56, and interim approval to make financial commitments and undertake preliminary construction work*, Case No. PUE010039, Order (January 16, 2002) (“*Tenaska Remand Order*”) and Final Order (April 19, 2002); *Application of Mirant Danville, LLC*, Case No. PUE-2001-00430, Remand Order (April 29, 2002); *Application of CinCap Martinsville, LLC*, Case No. PUE-2001-00169, Remand Order (April 29, 2002); *Application of Kinder Morgan Virginia*, Case No. PUE-2001-00423, Remand Order (April 29, 2002).

<sup>30</sup>Staff Report, March 28, 2002, at 5.



Creek end of AEP's Hales Branch to Grassy Creek 138 kV transmission line. The new station will be named the Keen Mountain Station and built immediately adjacent to CONSOL's existing Grassy Creek Substation through which it receives power for its mining operations. The cost of the new facilities will be borne totally by Buchanan Generation.<sup>31</sup>

## **Environment**

### *1. DEQ Recommendations*

The DEQ report is attached to the Staff Report as Appendix C. DEQ recommends that the Company:

- Obtain all applicable environmental permits or approvals prior to commencement of construction activities;
- Comply with the conditions of all required permits and approvals;
- Commission an inventory of the project area for suitable habitat of the five rare plant species mentioned in the discussion of natural heritage resources, before commencing construction activity;
- Coordinate with the Department of Game and Inland Fisheries, the Department of Conservation, and the Marine Resources Commission concerning the permit application for the County's water lines to cross the Levisa Fork, prior to any construction activity;
- Complete the evaluation of the potential for subsidence of the project site by following the guidance that may be provided by the Department of Mines, Minerals, and Energy in its review of the information the Applicant has supplied on this topic, prior to any construction activity;
- In making stream crossings of water or gas pipelines, or doing any other in-stream work, observe the recommendations of the Department of Game and Inland Fisheries in the wildlife resources discussion;
- Follow the defined recommendations for forest and tree protection;
- Following construction or other land disturbance, plant vegetation in the disturbed areas that is suitable for wildlife habitat and use, to the extent practicable;
- Reduce, re-use, and recycle solid wastes to the greatest extent practicable;

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<sup>31</sup> Id. at 5.

- Consider development of an effective Environmental Management System, and follow as many pollution prevention tips as practicable;
- Preliminary site preparation activity must not include any land disturbance until and unless all applicable approvals and permits, including the approval of the Erosion and Sediment Control Plan (for the generating project), have been issued by the agencies with jurisdiction; and
- Use any pesticides or herbicides in strict accordance with manufacturers' recommendations.

Staff does not believe that any of the recommendations should preclude construction and operation of the project nor has the Applicant objected to any of those recommendations. I, however, have been advised that construction of the project has already been completed. Although many of the recommendations of the DEQ are therefore moot, the Applicant should be directed to comply with those recommendations that affect activities beyond the construction period. Further, the Applicant should be directed to provide a complete list of all permits required and received for the project.

## 2. *Air Quality*

On May 17, 2002, Allegheny Energy Supply also filed a cumulative impact analysis for the Buchanan Generation project. The analysis provides information on the cumulative impact of the Buchanan Generation facilities and 22 other existing and proposed generating facilities on existing air quality in Buchanan County and the surrounding area with respect to two pollutants, NO<sub>x</sub> and PM<sub>10</sub>. Definitive guidelines are established for determining the acceptability of impacts from a single source or the cumulative impact from any group of sources. The guidelines are the NAAQS established under the Federal Clean Air Act and the Prevention of Significant Deterioration increments (“PSD increments”) established under that same Act. The NAAQS are designed by the Environmental Protection Agency (“EPA”) to protect the health and welfare of the public. The PSD increments have been established to control the degradation of air quality in areas where the present air quality levels are better than the NAAQS. The Buchanan Generation project was classified as a state major project and thus a dispersion modeling study was required by the DEQ. That study was performed and considered the projected impacts of the project alone on existing ambient concentrations in the project area.<sup>32</sup> The cumulative impact analysis presented by Buchanan Generation on May 17 was “designed to be consistent with the cumulative analysis conducted for Tenaska... with which the DEQ and SCC [S]taff are already familiar,” and went beyond consideration of the impact of the Buchanan Generation project alone.<sup>33</sup>

The scope and design of the cumulative impact study addressed only NO<sub>x</sub> and PM<sub>10</sub> as the primary criteria pollutant emissions of concern. The Applicant represented that the Buchanan Generation project will exclusively fire coal seam methane and produce “essentially no SO<sub>2</sub> emissions.”<sup>34</sup> It asserts that the “Buchanan [p]roject SO<sub>2</sub> emissions cannot therefore meaningfully

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<sup>32</sup>Cumulative Impact Analysis, May 17, 2002, at 1-2.

<sup>33</sup>*Id.* at 3-1.

<sup>34</sup>*Id.*

contribute to a cumulative impact.”<sup>35</sup> It also contends that CO is not a pollutant of concern for a regional point source analysis and in addition, the facility's CO emissions are very low.<sup>36</sup> VOC emissions are not addressed, but in earlier testimony Mr. McComb had represented only small quantities would be emitted.<sup>37</sup>

The study looked at a 50 kilometer radius area (the “modeling domain”) within which impact predictions were made.<sup>38</sup> That modeling domain thus considered portions of eight southwestern counties, but the predicted impacts include any contribution from the transport of emissions from all 23 proposed power projects regardless of their location in Virginia. The modeling domain includes all of Buchanan County, the majority of Dickenson County and Russell County, and a small portion of Wise County, Washington County, Smythe County, and Bland County. It also includes a significant portion of Tazewell County in Virginia.

The study was designed using the EPA recommended modeling methodologies and representative meteorological and background air quality data collected near the Buchanan Generation site. The modeling results are summarized for the location of the highest impact and for the location of the highest cumulative impact within the study area.<sup>39</sup>

Impact	Pollutant	Avg. Period	Max. Impact (ug/m3)	Existing Air Quality Levels (ug/m3)	NAAQS (ug/m3)	% of Existing Air Quality Levels	% of NAAQS
<b>Buchanan Project Alone</b>	<b>PM<sub>10</sub></b>	24-Hour	0.314	50	150	0.6	0.2
		Annual	0.07	25	50	0.3	0.1
	<b>NO<sub>x</sub></b>	Annual	0.89	16	100	5.6	0.9
<b>Cumulative - All 23 Proposed Power Projects</b>	<b>PM<sub>10</sub></b>	24-Hour	1.788	50	150	3.6	1.2
		Annual	0.45	25	50	1.8	0.9
	<b>NO<sub>x</sub></b>	Annual	1.28	16	100	8.0	1.3

The chart shows the maximum predicted impacts compared to existing background levels in the vicinity of the Buchanan Generation project and to the NAAQS. All three maximum impacts for the project alone occurred within 500 meters of the Buchanan Generation stacks. The maximum annual NO<sub>x</sub> for all 23 proposed power plants also occurred at that same point. Maximum PM<sub>10</sub> impacts for both 24 hour and annual periods from all power plants combined occurred near the edge of the 50 kilometer study area.<sup>40</sup>

<sup>35</sup>Id.

<sup>36</sup>Id.

<sup>37</sup>McComb direct testimony, November 13, 2001, at 2 and Attachment, Air Permit Application at 14..

<sup>38</sup>Cumulative Impact Analysis, May 17, 2002, Figure 3-1; and Map attached hereto as Appendix A.

<sup>39</sup>Id. at Table 10-2 at 10-7.

<sup>40</sup>Id. at 10-2.

The maximum impact from the Buchanan project alone is predicted to be less than 1% of the existing air quality levels for both pollutants studied. The maximum predicted impact from all 23 proposed power projects is no greater than 8% of the existing air quality levels for either pollutant.

The maximum predicted impact for the project alone as well as for all 23 proposed power plants combined is less than 2% of the NAAQS. Those impacts are measured at only one point, the point of highest impact, and all other locations in the county and surrounding areas are predicted to have lesser impacts.<sup>41</sup> The results indicate that the Buchanan Generation project does not cause or significantly contribute to a violation of the NAAQS and produces only a minor impact on air quality. Even when combined with all proposed power generation sources, the impacts are well below established guidelines.<sup>42</sup> The results of the analysis are shown dramatically in a graph included in the study and attached hereto as Appendix B.<sup>43</sup>

The maximum impacts from the project alone are also below PSD significant impact levels ("SIL") as shown below.<sup>44</sup>

<b>Pollutant</b>	<b>Avg. Period</b>	<b>Max Impact (ug/m3)</b>	<b>SIL (ug/m3)</b>	<b>Max. Impact As Percent of SIL</b>
<b>PM<sub>10</sub></b>	24-hour	0.314	5	6%
	Annual	0.07	1	7%
<b>NO<sub>x</sub></b>	Annual	0.89	1	89%

The DEQ reported that the results of the analysis provided by the Applicant verified there would be only minimal increases in the air quality levels of PM<sub>10</sub> and NO<sub>x</sub> in the study area associated with the proposed facility. Moreover, DEQ observed that predicted concentrations of those pollutants were shown to be well below established health based standards. The DEQ advised that the approach taken by the Applicant in the analysis was a reasonable way to address the issue of cumulative impacts.

No analysis was done by the Applicant for ozone, but the record still supports certain conclusions in this area. First, a number of variables affect ozone formation. These ozone precursors include regional emissions of NO<sub>x</sub> and VOC, and the weather. The Applicant has provided data to show that existing air quality will be only minimally affected by cumulative NO<sub>x</sub> emissions, the major precursor to the formation of ozone.

Moreover, the DEQ also included a summary of the results of its latest study of the impact of sixteen proposed facilities, including the Buchanan Generation facility, on ozone levels across the state.<sup>45</sup> DEQ advised that there is no current EPA approved method for predicting ozone concentrations, but the DEQ study was undertaken to address public concerns about the possible

<sup>41</sup>Id. at 10-3 to 10-4.

<sup>42</sup>Id. at 2.

<sup>43</sup>Id., Executive Summary, Figure 2.

<sup>44</sup>Id. at 10-3.

<sup>45</sup>DEQ letter and attachments, May 20, 2002.

impact of the numerous proposed facilities on ozone levels in the state. DEQ also cautioned that more refinements to the model used to predict ozone concentrations are needed. The summary of the DEQ results was prepared January 30, 2002. The maximum predicted impact on ozone formation was estimated to be between 0.50 parts per billion (“ppb”) and 0.75 ppb around the Buchanan Generation facilities.<sup>46</sup>

### 3. *Water*

The project will acquire its water supply from the County, and the County supports the project. It expects sufficient supply and additional revenue from the sale of water to the facilities. Further, the new water line that will be paid for by the Applicant may also be used to serve other customers in the area. The project will be a zero discharge facility, and so there are no issues concerning water supply or discharge contamination.

### **Competition**

Staff reported that any capacity not controlled by the incumbent utility is a desirable addition to generation because conventional notion correlates positively market power with ownership or control of generating capacity. Market power is generally associated with the concentration of generation ownership. Therefore the addition of capacity that is not owned or controlled by the incumbent utility advances the establishment of a competitive electric power industry. This project is within the controlled area of AEP but will be owned and operated under the ownership of Allegheny Energy Supply and CONSOL. Therefore the construction of the facility may have a slight mitigating effect on AEP’s market power.

### **Economic Development**

The Applicant, Staff, and the County all reported that the project will have a positive effect on the local and regional economy. Although the Applicant did not prepare a formal economic study, the facility will add to the County’s tax base, and the Applicant will pay property taxes of approximately \$4.4 million over the 20-year life of the plant.

The primary economic benefit to Buchanan County is expected to be tax revenues associated with the \$54 million facility. The project also enabled the employment of approximately 200 workers to construct the plant and associated facilities. The plant is designed to operate without permanent staffing, but local and regional contract services for plant support will be used resulting in two to three full-time equivalent jobs. In addition, the unmanned nature of the facility will require regular visits from corporate support that will provide a benefit to local travel related industries. A significant portion of the plant's annual operating budget will find its way into the local and regional economy, including water purchases from the Buchanan County Water Authority.<sup>47</sup>

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<sup>46</sup>Id., Map showing latest DEQ ground level ozone modeling results (attached hereto as Appendix C).

<sup>47</sup>Irwin direct testimony, November 13, 2001, at 8.

## **The Public Interest**

The Commission must also determine that a proposed project will not have an adverse material impact on the public interest. Evidence received in this record positively supports the project and no evidence indicates that there would be any harm to the public interest resulting from the construction and operation of this project. Indeed, all the evidence supports the affirmative conclusion that the facility will be in the public interest.

## **Transmission Line**

The associated 138 kV transmission line must also be certificated. The line is necessary to interconnect the generation facilities to AEP. The first 0.42 mile of the transmission line will be located on the property of Consolidation Coal. The next 1.57 miles parallel an existing AEP 69 kV transmission line. The first 0.35 mile of this section is also on Consolidation Coal property, and the remaining section traverses northeasterly to the proposed AEP switching yard adjacent to the existing Grassy Creek Substation.<sup>48</sup> The Applicant and Staff considered and rejected several alternatives to this interconnection plan. One alternative considered was a new transmission line to connect with the Garden Creek Substation. That line would have been approximately four miles in length, longer than the preferred route. The preferred route will also lessen potential overloading on the 69 kV subtransmission system, and offer potential growth of the 138 kV system towards Richlands, Virginia.<sup>49</sup> The chosen route is shorter, utilizes an existing transmission line corridor, and falls on a substantial portion of the property of Consolidation Coal, a subsidiary of CONSOL.<sup>50</sup> The impact of the line on the environment is thus minimized, and the line should also be approved.

Virginia Code § 56-265.2 C also requires the Applicant to provide notice to the public utility in whose certificated territory the line will be located, and provide the Commission with a map showing the location of the proposed line and to notify the public utility in whose territory it will be constructed and operated. Applicant has fulfilled those requirements.<sup>51</sup>

## **FINDINGS AND RECOMMENDATIONS**

1. The proposed project will have no adverse impact on the reliability of the AEP electric system;
2. The current level of air quality in Buchanan County is good, and is an attainment of all National Ambient Air Quality Standards;
3. The Applicant's cumulative impact analysis is reasonable;

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<sup>48</sup>Irwin supplemental testimony, December 13, 2002, at 6.

<sup>49</sup>Staff Report, March 28, 2002, at 6.

<sup>50</sup>Irwin supplemental testimony, December 13, 2002, at 6; and Staff Report, March 28, 2002, at 6.

<sup>51</sup>Id.

4. The cumulative impact analysis adequately demonstrates that the facility's emissions, when combined with the emissions from 23 other existing or proposed facilities, will have no material adverse effect on air quality in Buchanan County and the surrounding area;

5. The DEQ analysis shows the impact on ground level ozone will not be significant in Buchanan County and the surrounding area;

6. The Facility's emissions will have no material effect on economic development in Buchanan County and the surrounding counties because the analysis shows no significant deterioration of air quality and maintenance of levels well below the NAAQS;

7. The Facility will have no adverse effect on competition;

8. The Facility will have a positive effect on the local and regional economy; and

9. The Facility will have no adverse impact on the public interest.

In conclusion, based on the evidence received in this case, and for the reasons set forth above, ***I RECOMMEND*** the Commission:

1. ***GRANT*** Buchanan Generation authority and a certificate of public convenience and necessity pursuant to § 56-580 D of the Code of Virginia to construct and operate an 88 MW generation facility, and the associated facilities including a 138 kV transmission line to interconnect the facility to the AEP system in Buchanan County as described above;

2. ***DIRECT*** the Applicant to comply with the recommendations of the DEQ;

3. ***PROVIDE*** that the certificate is conditioned on the receipt of all permits necessary to operate the facility, and direct the Applicant to provide that complete list to the Division of Energy Regulation; and

4. ***DISMISS*** this case from the docket of active matters.

## **COMMENTS**

The parties are advised that any comments (Section 12.1-31 of the Code of Virginia and 5 VAC 5-20-120 C) to this Report must be filed with the Clerk of the Commission in writing, in an original and fifteen (15) copies, within seven (7) days from the date hereof. The mailing address to which any such filing must be sent is Document Control Center, P.O. Box 2118, Richmond, Virginia 23218. Any party filing such comments shall attach a certificate to the foot of such

document certifying that copies have been mailed or delivered to all counsel of record and any such party not represented by counsel.

Respectfully submitted,

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Deborah V. Ellenberg  
Chief Hearing Examiner